

## **Revegetation at the Belmont Mine with Irrigation of Treated Mine Water**

### **Abstract**

Historic mining activities in Butte, Montana degraded much of the landscape and vegetation. During the last five years mine tailings located near the Belmont Mine near the Berkeley Pit have been successfully capped and reseeded with vegetation in an effort to “green” and develop the area. This new vegetation may become impractical to irrigate using municipal water, due to cost and drought. A practical alternative source of irrigation is needed. One potential source of irrigation water lies directly below from the Belmont Mine workings. Initial sampling of the mine water has a neutral pH, 6.5 to 7.0, and, elevated metals including iron, manganese, arsenic, and zinc exceed non-agricultural irrigation discharge levels. A system that will lower metal requirements to below discharge levels for needed irrigation requirements is being developed. Several potential technologies for remediation along with cost analysis will be presented and discussed.

### **Suzzann Nordwick**

MSE-Technology Applications, Inc.

P.O. Box 4078

Butte, MT 59702

406-494-7433

[suzzann.nordwick@mse-ta.com](mailto:suzzann.nordwick@mse-ta.com)